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SUBMITTED ELECTRONICALLY

March 9, 2016

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

RE: Written *Ex Parte* Presentation in RM-11681; IB Docket Nos. 12-340 and 11-109; and IBFS File Nos. SES-MOD-20151231-00981, SAT-MOD-20151231-00090, and SAT-MOD-20151231-00091

Dear Ms. Dortch:

Garmin International, Inc. ("Garmin"), by its attorneys, provides this letter to supplement the *ex parte* presentation submitted by Ligado Networks, LLC ("Ligado") (formerly New LightSquared LLC) on February 11, 2006, in order to aid the Commission and all affected parties in establishing the best path forward.¹ Garmin does not oppose that presentation.

Ligado's February 11, 2016 letter relies principally on a consultant from Roberson and Associates. The letter also draws upon attached slides from Ligado, based, in part, on four sources footnoted on the last two pages.

In reaching its settlement agreement with New LightSquared LLC, Garmin negotiated a five-year transition period in Ligado handset power limits so that Garmin engineers could work to accommodate Ligado's proposed network and to address concerns over interference with GPS.² Garmin's engineers expect that it will take this full period for them to complete the process of developing, making, and implementing design and component part modifications related to the goal of minimizing interference to GPS. In this work, Garmin's engineers will utilize a variety of custom and off-the-shelf components that will exhibit a range of performance characteristics. Garmin engineers will devote particular effort and draw upon their specialized expertise to help implement the settlement agreement, since similar (or even the same) components often exhibit a range of performance characteristics dependent upon implementation. Accordingly, circuit design, printed circuit board layout, and testing will be critical in this effort. Significant variation in system performance can result from minimal

¹ See Letter from Gerard J. Waldron to Marlene H. Dortch, IB Docket No. 12-340, *et al.* (Feb. 11, 2016).

² See Paragraph 6(a) & Exhibit B in "Settlement Agreement and Releases" by and between Garmin International, Inc. and New LightSquared LLC and LightSquared Subsidiary LLC dated Dec. 16, 2015, attached to Letter from Gerard J. Waldron to Marlene H. Dortch, IB Dockets No. 12-340, *et al.* (Dec. 17, 2015).



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variations in circuit topology and printed circuit board layout and manufacture. Further, Garmin engineers will be engaged in detailed laboratory and factory testing to ensure that temperature and process variations do not negate gains made in component design and implementation. Garmin encourages Ligado to work together with others in the navigation industry to establish realistic timetables since those companies will face their own unique challenges in making changes to optimize the service that Ligado customers ultimately receive.

Garmin believes that such collaboration is important so that new, compatible devices may be developed and marketed within the five-year frame specified in the Garmin-LightSquared settlement agreement. Making such new options available will be important for users of older equipment; that older equipment obviously will include technical features that pre-date LightSquared's settlement agreement with Garmin. As evidenced by the high volume of inquiries Garmin receives every year from customers who are asking about older Garmin products, Garmin knows that maximizing product choices will be essential to motivate new purchases by the large number of its own customers who exhibit reluctance to replace their devices. For instance, based on call center data, Garmin is aware that approximately 75.5% of the customer service inquiries for personal navigation devices that it received in 2015 were for products that were more than two years old.

Garmin remains committed to its settlement agreement with New LightSquared.

Very truly yours,

A handwritten signature in blue ink, appearing to read "M. Anne Swanson", is written over a horizontal line.

M. Anne Swanson
Counsel to Garmin